R E P O R T R E S U M E S

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AN INTERDISCIPLINARY INSTITUTE FOR THE IN-SERVICE TRAINING OF TEACHERS AND OTHER SCHOOL PERSONNEL TO ACCELERATE THE SCHOOL ACCEPTANCE OF INDIAN, NEGRO, AND SPANISH-SPEAKING PUPILS OF THE SOUTHWEST. INTERIM REPORT NUMBER 3.

BY- WILLEY, DARRELL S.
NEW MEXICO STATE UNIV., UNIVERSITY PARK

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THIS THIRD REPORT IN A SERIES OF FOUR IS CONCERNED WITH AN EXPLORATORY ASSESSMENT OF THE EDUCATIONAL OPPORTUNITY OFFERED BY SCHOOL SYSTEMS SERVING TWO MULTICULTURAL COMMUNITIES. ONE SYSTEM HAS A PUPIL POPULATION OF APPROXIMATELY 1,500 OF WHICH 85 PER CENT ARE ANGLO, 10 PER CENT ARE INDIAN, AND 5 PER CENT ARE SPANISH-AMERICAN. THE OTHER SYSTEM HAS A PUPIL POPULATION OF APPROXIMATELY 1,700, OF WHICH 40 PER CENT ARE ANGLO, 45 PER CENT ARE SPANISH-AMERICAN, AND 15 PER CENT ARE INDIAN. PUPIL PERFORMANCE WAS MEASURED BY EVALUATING ABILITY TESTS, ACHIEVEMENT TESTS, ASSIGNED GRADES, AND ATTENDANCE AS REPORTED IN THE CUMULATIVE RECORDS. THESE PERFORMANCE MEASURES ARE PRESENTED BY ETHNIC GROUPS AND BY GRADE GROUPS. NO CONCLUSIONS ARE REPORTED. (SF)

NEW MEXICO STATE UNIVERSITY

LAS CRUCES
NEW MEXICO
88001

TELEPHONE:
LAS CRUCES, N. M.
505—646-2611

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INTERIM REPORT NO. 3

for

An Interdisciplinary Institute for the In-service Training of Teachers and Other School Personnel to Accelerate the School Acceptance of Indian, Negro, and Spanish-Speaking Pupils of the Southwest.

Restricted exclusively for the use of the United States Office of Education, Aztec and Tularosa School Districts, New Mexico, and New Mexico State University.

by

Darrell S. Willey, Professor and Head
Department of Educational Administration
College of Teacher Education
New Mexico State University
Las Cruces, New Mexico

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DIRECTED BY DR. DARRELL S. WILLEY

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U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

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A. Content

Dr. James G. Anderson, Research Professor of Educational Administration and Dr. Dwight Safar, Assistant Professor of Education further analyzed data from the two community studies at Aztec and Tularosa, New Mexico. Their research paper entitled, "Pupil Performance Within Two Multi-cultural Communities," (Appendix A) forms the corpus of the third Interim Report. It is anticipated that a revision of this paper will be submitted for publication in the fall of 1967.

B. Specific Detail

From 24 January to 15 March, 1967, an evaluation of the institute was conducted.

Miss Ann Simmons and Mr. Ellis Scott visited the home schools of the 38 participants in 35 schools located within 22 school districts. Of the initial 40 participants, one has since moved from the region and one has died.

Tape recordings were made of each interview. Impressions of administrators and supervisors were also solicited. The analysis of the information obtained from these taped sessions will constitute the content of the fourth and final report.

Appendix A

PUPIL PERFORMANCE WITHIN TWO MULTI-CULTURAL COMMUNITIES

James G. Anderson
Research Professor of
Educational Administration

Dwight Safar
Assistant Professor of
Education

NEW MEXICO STATE UNIVERSITY

RESEARCH CENTER

Las Cruces, New Mexico

March 1967

INTRODUCTION

Of the many responsibilities ascribed to school systems, the teaching of intellectual skills and knowledge is among the most important. The significance of this responsibility is documented by the continuous changes in the pedagogical enterprise. Systematic upgrading of staff qualifications, programs stimulated by a spate of legislative acts ear-marked to alleviate specific problems, and the emphasis on technological innovations are a few of the measures designed to enhance the achievement of cognitive skills.

Not the least of the recent concerns is that of equality of educational opportunity. The focus of attention here, of course, is equal education for all members of the American populance. In part, this concern is manifested in the endeavors to offer equal education for members of minority cultural groups. Coupled with the concern to provide equal educational opportunities is the responsibility of assessing the effectiveness of such efforts. Anyone who attempts to assess educational opportunity is plagued with an assortment of problems, of which, the selection of criteria is perhaps the most difficult.

It seems apparent that fulfilling the responsibility of teaching intellectual skills and knowledge and the subsequent assessment of effectiveness in meeting this responsibility is particularly difficult in a school system that draws its pupil population from rather divergent cultural backgrounds.

The balance of this paper contains an exploratory assessment of the educational opprtunity offered by school systems serving two multicultural communities. This assessment was undertaken as part of an Equal Educational Opportunities Institute conducted at New Mexico State University

during the 1966 summer session.[1] Following five weeks of discussions, seminars and lectures concerning the historical and current status of minority group relations in the Southwest a field laboratory experience was conducted in the form of a comprehensive community study. One of the major goals of this field experience was to afford the students an opportunity to assess the extent to which equal educational opportunities were provided for Indian and Spanish-American children.

This assessment was conducted in two Southwestern school systems. The community served by school system "A" is characterized as a rural farming community predominantly Anglo in makeup. Spanish-speaking families and a few Indian families constitute minority groups. The bulk of the Indian pupils who attend the schools reside in a dormitory in the community. The school board, school administration, and all but a very few teachers are Anglo. School system "A" has a pupil population of approximately 1,500 of which 85 percent are Anglo, 10 percent are Indian, and 5 percent are Spanish-American.

Many of the Anglos and Spanish-Americans residing in the community served by school system "B" are employed by the Federal Government at one of several military installations. The schools in this system are attended by approximately equal numbers of Anglo, Spanish-American and Indian pupils. The Indians are bussed in from a reservation each day. In this system, the school board consists of four Spanish-American and one Anglo member. The superintendent is Spanish-American, but the other administrators and the majority of the teachers are Anglo. School system "B" has a pupil population of approximately 1,700, of which 40 percent are Anglo, 45 percent are Spanish-American, and 15 percent are Indian.

In order to assess the differential effectiveness of the schools' programs for Indian, Spanish-American and Anglo students, several measures of pupil performance were examined and the three groups compared at the elementary (grades 1-6), junior high (grades 7 & 8) and senior high (grades 9 - 12) levels.

Pupil performance was measured by evaluating ability tests, achievement tests, assigned grades and attendance. These were obtained from the cumulative records within the respective systems. Every third pupil was included in the sample. Pupils were ascribed to low, medium, and high groups with regard to their scores on each of the performance variables. Figure 1 contains a description of the sources of pupil data and decision rules for group assignment.

TABLE 1

PUPIL PERFORMANCE - THE FINDINGS

Pupil Ability

Probably the first pupil characteristic which receives consideration in an attempt to investigate expected learning is ability level. Table 2 provides data relative to ability levels of Anglo, Spanish-American and Indian pupils for the two school systems.

TABLE 2

On the basis of national norms, 40 percent of the pupils should fall in the high group, 20 percent in the middle group and 40 percent in the

low group. These expectations are based on the assumption that the pupils are a representative sample of a pupil population wherein pupil abilities are normally distributed. Examination of the percentages of Anglo, Spanish-American and Indian pupils within the respective ability groups reveals a marked divergence from the 40 - 20 - 40 expectancy.

In System A, 55 percent of the Anglo pupils have high IQ scores, 18 percent have medium scores, and 27 percent have low scores. For the Spanish-American pupils the high, medium and low percentages are 33, 26, and 41 respectively; and for the Indian pupils, the percentage of students whose IQ scores fall into each category are 18, 9, and 73, respectively.

The same disparity holds for System B. It is quite obvious from the data that in the two systems there is a descending order of performance on general ability tests. As other studies have demonstrated Anglo children's scores are highest while Indian children's scores are lowest.

An issue which has received considerable attention in testing is the appropriateness of using tests to measure general ability or scholastic aptitude for pupils with backgrounds that differ from the dominant Anglo middle-class culture. Assuredly, intelligence tests are not culture free. They measure a sample of general learnings which offer reasonable estimates of future learning in school. The items are largely quantitative and verbal in nature - skills which are basic to progress in educational programs.

Tyler summarized the research on this topic by concluding:

> It can be said with considerable certainty that Indian averages are considerably below white averages on tests involving a high degree of abstraction and the understanding of verbal concepts. In tests involving reasoning in terms of concrete materials and manipulation

> of spatial relationships, there is some evidence that the two races do not differ. In making use of these findings, we should remember that it is the abstract, verbal test materials that afford us our best prediction of school success, so that we should expect Indians as a group to be less well adapted than whites to the kind of school work customary in our civilization.[2]

Although Tyler's remarks pertain to performance of Indian pupils, the summary is relevant for pupils from other minority groups.

According to the data in Table 2, it is questionable whether equal educational achievement could be expected for the pupils from the various ethnic groups, assuming Tyler's summary is appropriate for the pupils included in the present study.

Data in Table 3 provides information concerning the achievement of pupils from the various ethnic groups for the two respective school systems.

TABLE 3

In view of the ability data, one would expect a comparable distribution of achievement scores. For example, in System A, the Anglo pupils had the following distribution of ability test scores: high (55 percent), medium (18 percent), and low (27 percent). Basing achievement expectancies on these values, it is found that actual achievement values bear a close resemblance for the Anglo pupils. A similar correspondence between actual and predicted distributions of achievement scores was found for Spanish-American and Indian pupils. However, for all pupils, slightly lower percentages are found in the medium and high achievement groups than would be expected on the basis of ability data.

In System B, the percentage of pupils with high, medium, and low achievement scores is much lower than one would expect on the basis of the ability data in Table 2. For all three ethnic groups, there is a higher percentage in the low achievement group and a lower percentage in the middle and high achievement groups than would be expected on the basis of the distribution of ability scores.

It is not surprising to find a substantial relationship between ability and achievement; both are a measure of learning, the former more general than the latter. It is somewhat surprising to find the disparity between ability and achievement in Community B that obtains for all three ethnic groups.

The above analysis treated the two variables independently, however, in Table 4, the relationship between ability and achievement can be observed.

TABLE 4

These data reveal moderate relationship between ability and achievement. The strength of this relationship appears to decline as we consider Anglo pupils, Spanish-American pupils and Indian pupils in turn. For all three ethnic groups, students in medium ability category appear to achieve at a lower level than expected.

Although the sample sizes are rather small, it is interesting to observe the difference in the relationship between ability and achievement for Indians in the two systems. Of the Indian pupils in the high ability group in System A, 71 percent have medium or high achievement scores,

whereas, in System B, all of the Indian pupils in the high ability group manifest low achievement scores.

In order to obtain an insight into the performance of pupils as they move through the educational system an analysis of ability and achievement was made for all pupils according to educational level--elementary, junior high, and senior high school. The data in Table 5 portrays this relationship.

TABLE 5

It is quite evident from the data that the relationship between ability and achievement is substantial at the elementary and senior high school levels. There appears to be a "breakdown" in this relationship at the junior high school level. This is quite evident in System B, where none of the pupils in the low and medium ability groups are in the high achievement group.

As further evidence of pupil performance, data concerning pupil attendance were obtained. The authors view attendance as a reflection of the pupil's perception of and attitude toward the school system. Viewed in this manner, attendance is another measure of pupil performance. Table 6 contains a summary of pupil attendance by educational level for the three ethnic groups.

TABLE 6

A rather consistent pattern of attendance is found for Anglo and Spanish-American pupils at each of the educational levels in the two systems. On the whole the majority of these students attend school regularly. The pattern of attendance for Indian pupils in System A is consistent, reflecting the influence of the dormitory in which they reside in that community. However, in System B, where Indian students commute to school, the attendance of Indian pupils at the junior and senior high school levels is less than satisfactory. It is quite possible the poor attendance in this situation is related to the relatively low achievement of these pupils as reflected in Table 5.

In order to obtain a general impression of the relationship between attendance and assigned grades, Table 7 was constructed. These data permit an examination of the relationship between attendance and assigned grades for each of the ethnic groups in the two school systems.

TABLE 7

It is evident that measures of both variables were available for only a small number of pupils. However, a moderate relationship is revealed: the higher the assigned grades, the higher the attendance. A causal relationship is not implied because it is difficult to assume that teachers' assigned grades reflect attendance rather than academic success. It is logically assumed that attendance, at least in part, is necessary if a student is to achieve academically.

SOME RELEVANT QUESTIONS

The introduction of this paper stated that an exploratory assessment would be made of the educational opportunity offered by two school systems serving multi-cultural communities. Selected pupil performance data were evaluated in order to assess the extent to which equal educational opportunity exists for Spanish-American and Indian children. The pupil performance data suggests additional inquiries. For example, in view of the differences among measured pupil abilities can equal achievement be expected? If equal achievement can not be expected do equal opportunities exist for the various ethnic groups?

A number of authors state that equality of educational opportunity will exist only when the graduates of the schools are equally well prepared to compete for jobs, income, status, and housing.[3] If the above criterion is germane, then, in view of the marked differences in pupil achievement as measured by achievement tests, do equal educational opportunities exist for pupils from the various ethnic groups?

Do the data suggest that curriculum experts should affect major changes to provide equal opportunity in the school program? This question stems from the data in the present study and the remarks of Coleman and Campbell in their massive study of equal educational opportunity. In their comments concerning the relation of achievement to school characteristics they state:

> The first finding is that the schools are remarkably similar in the way they relate to the achievement of their pupils when the socioeconomic background of the students is taken into account. It is known that the socioeconomic factors bear a strong relation to academic achievement. When these factors are statistically controlled, however, it appears that differences between schools account for only a small fraction of differences in pupil achievement.

The schools do differ, however, in their relation to the various racial and ethnic groups. The average white student's achievement seems to be less affected by the strength or weakness of his school's facilities, curriculums, and teachers than is the average minority pupil's. To put it another way, the achievement of minority pupils depends more on the schools they attend than does the achievement of majority pupils. Thus, 20 percent of the achievement of Negroes in the South is associated with the particular schools they go to, whereas only 10 percent of the achievement of whites in the South is. Except for Oriental Americans, this general result is found for all minorities.

> The inference might then be made that improving the school of a minority pupil may increase his achievement more than would improving the school of a white child increase his. Similarly, the average minority pupil's achievement may suffer more in a school of low quality than might the average white pupil's. In short, whites and to a lesser extent Oriental Americans, are less affected one way or the other by the quality of their schools than are minority pupils. This indicates that it is for the most disadvantaged children that improvements in school quality will make the most difference in achievement.[4]

According to the data in Table 5, is there a sufficient discrepancy in the relationship between ability and achievement at the junior high school level to warrant extensive investigation relative to the etiology of this phenomenon?

NOTES

1. The data for this study were collected as part of An Interdisciplinary Institute for the In-Service Training of Teachers and Other School Personnel to Accelerate the School Acceptance of Indian, Negro, and Spanish-Speaking Pupils from the Southwest, Contract No. OEC 4-6-000201-1980, from the Office of Education, Department of Health, Education and Welfare, under P.L. 88-352, Title IV, Section 404, The Civil Rights Act of 1964, July, 1966 directed by Dr. Darrell S. Willey, Professor and Head of the Department of Educational Administration, New Mexico State University. The two communities are: Community A, Aztec, New Mexico, and Community B, Tularosa, New Mexico.

2. Leona Tyler, The Psychology of Human Differences (New York: Appleton-Century-Crofts, 1955), 303.

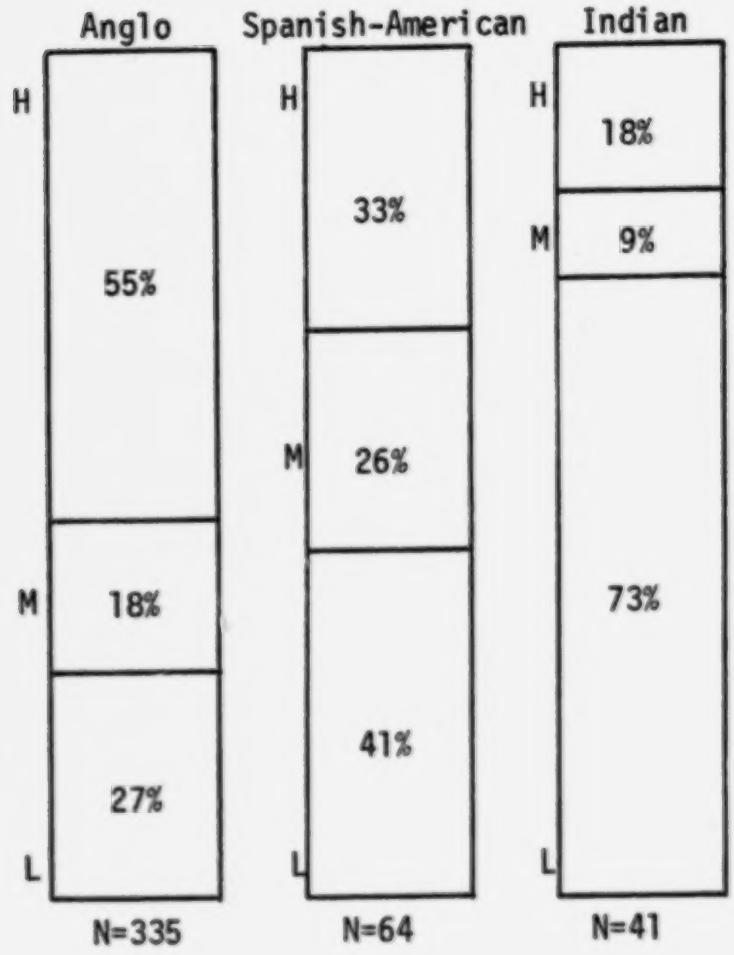
3. For example see Frank Riessman, The Culturally Deprived Child (New York: Harper & Row, 1962).

4. James S. Coleman and Ernest Q. Campbell, Equality of Educational Opportunity (Washington, D. C.: U.S. Government Printing Office, OE-38001, 1966), 21-22.

TABLE 1

SCORING OF PUPIL PERFORMANCE DATA

Variables	Score		
	Low	Medium	High
Ability-Score on most recent mental ability test (national reference group).	0-39 Percentile	40-59th Percentile	60-100th Percentile
Achievement-Composite score on most recent achievement test battery (national reference group).	0-39 Percentile	40-59th Percentile	60-100th Percentile
Attendance-Total number of days absent during last school year.	0-10	11-19	20-over
Grades-Average of assigned course grades for the last semester, 2.00 would reflect a C average (activity courses excluded).	0-1.49	1.50-2.49	2.50-over



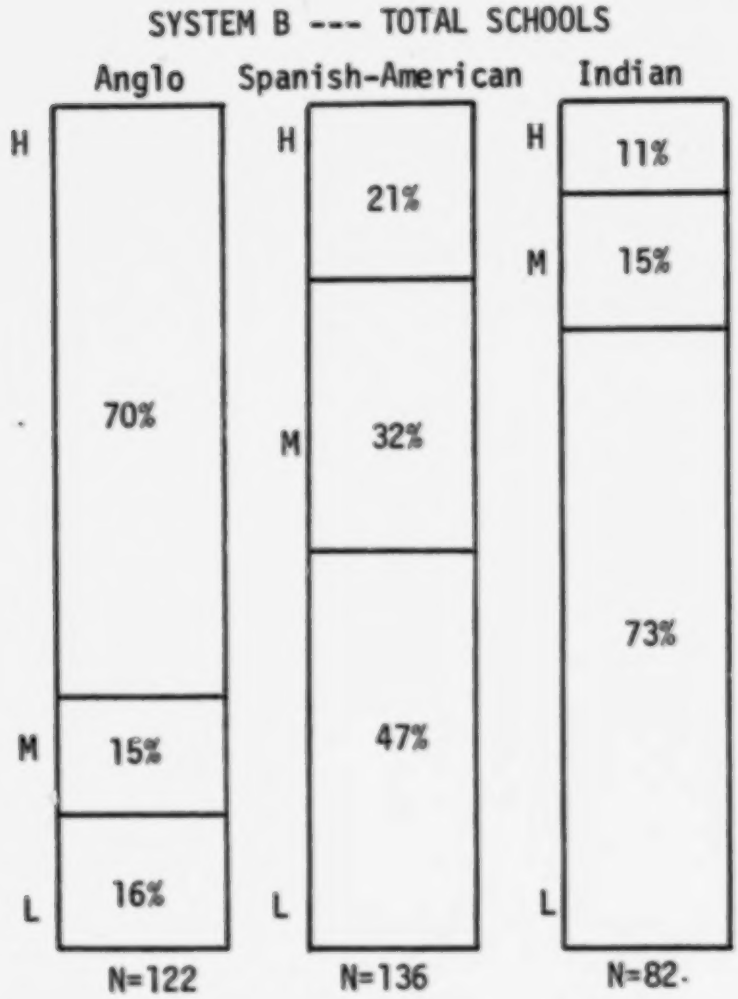
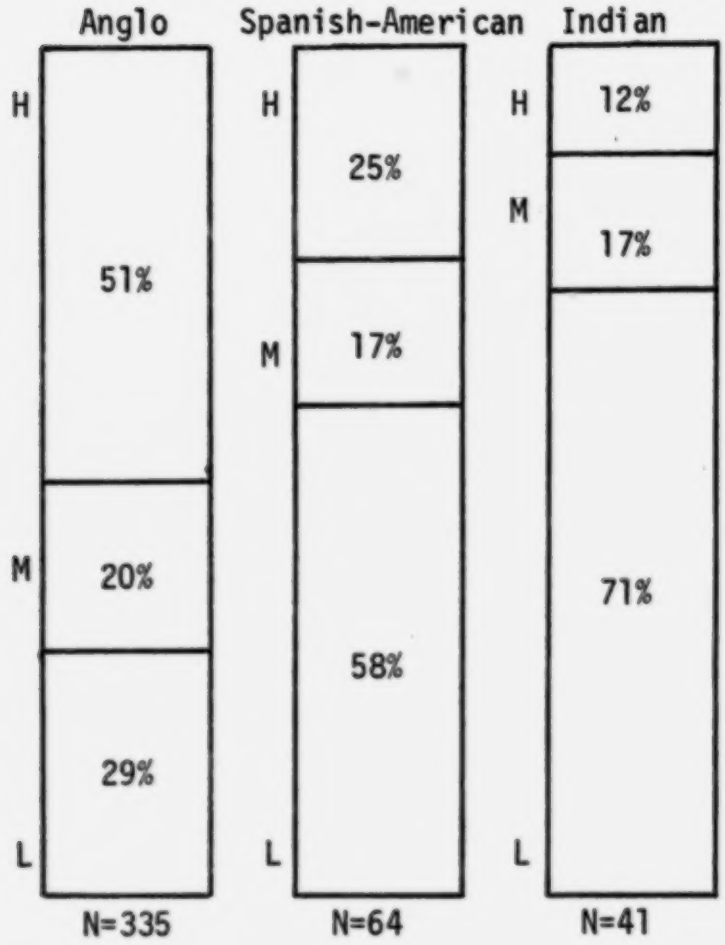


TABLE 2 --- PUPIL ABILITY LEVELS FOR ANGLO, SPANISH-AMERICAN AND INDIAN PUPILS

SYSTEM A --- TOTAL SCHOOLS



SYSTEM B --- TOTAL SCHOOLS

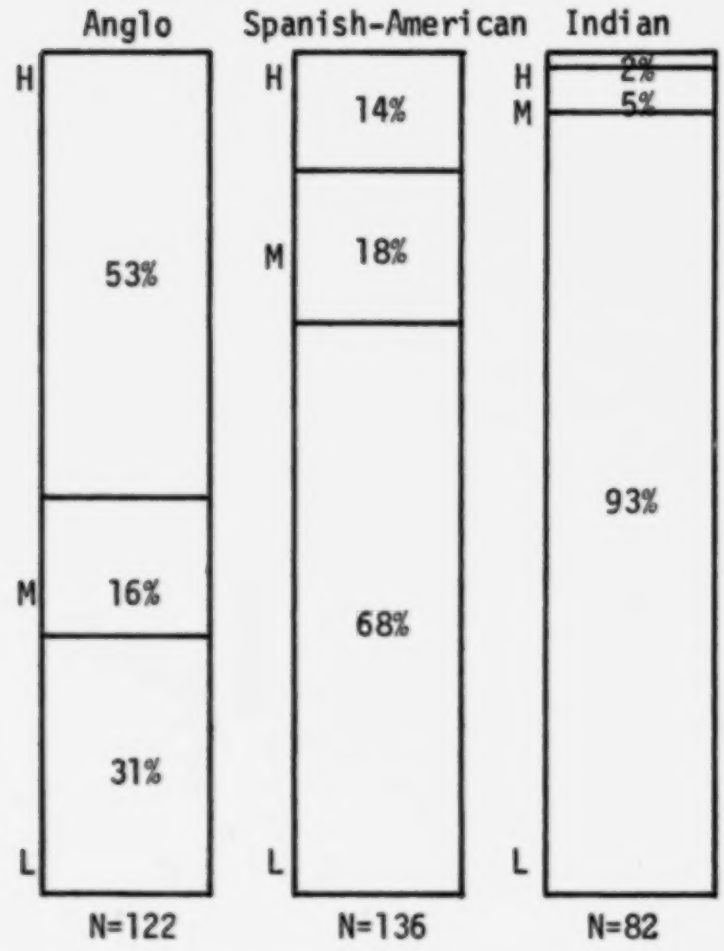
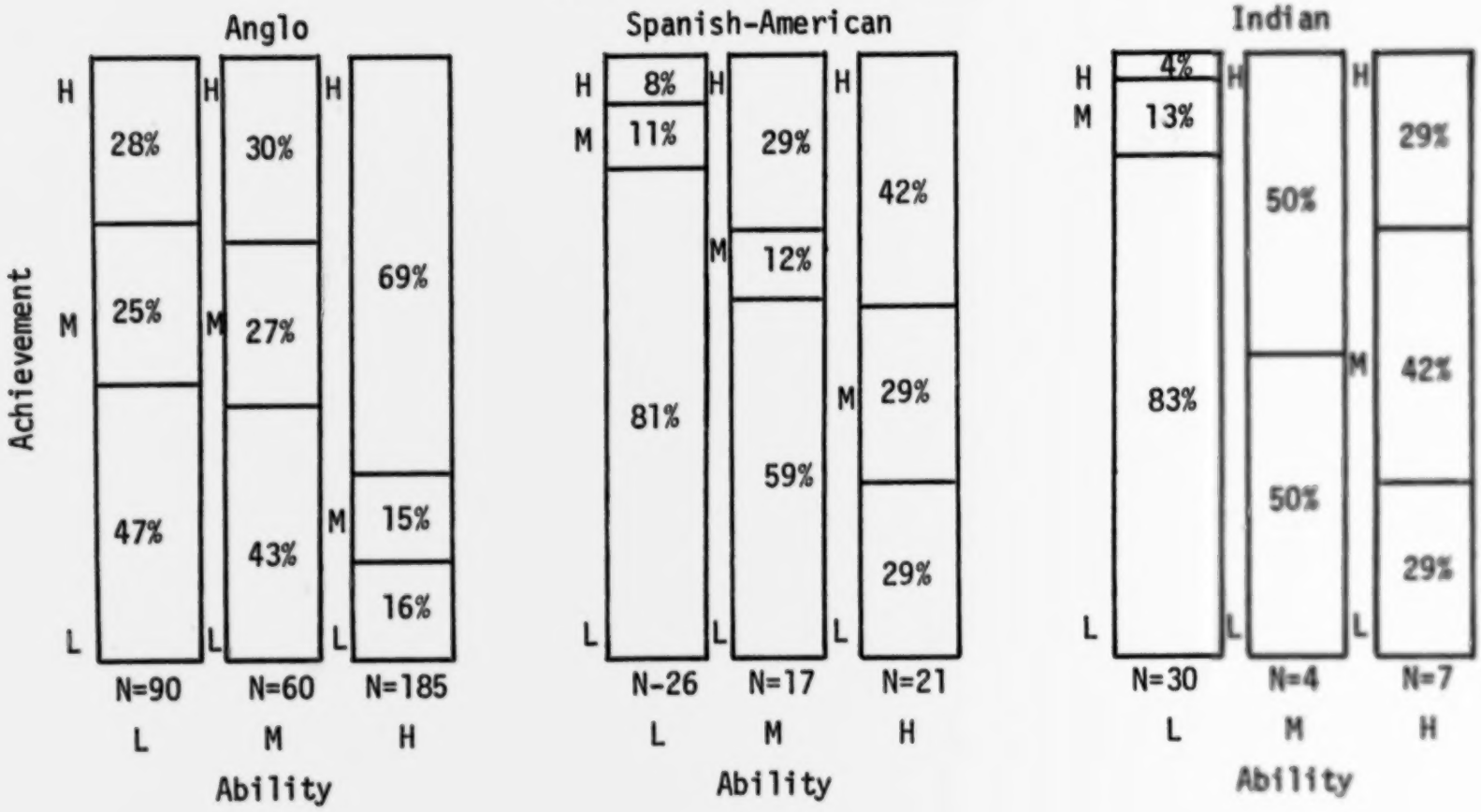


TABLE 3 --- PUPIL ACHIEVEMENT LEVELS FOR ANGLO, SPANISH-AMERICAN AND INDIAN PUPILS

SYSTEM A --- TOTAL SCHOOLS



SYSTEM B --- TOTAL SCHOOLS

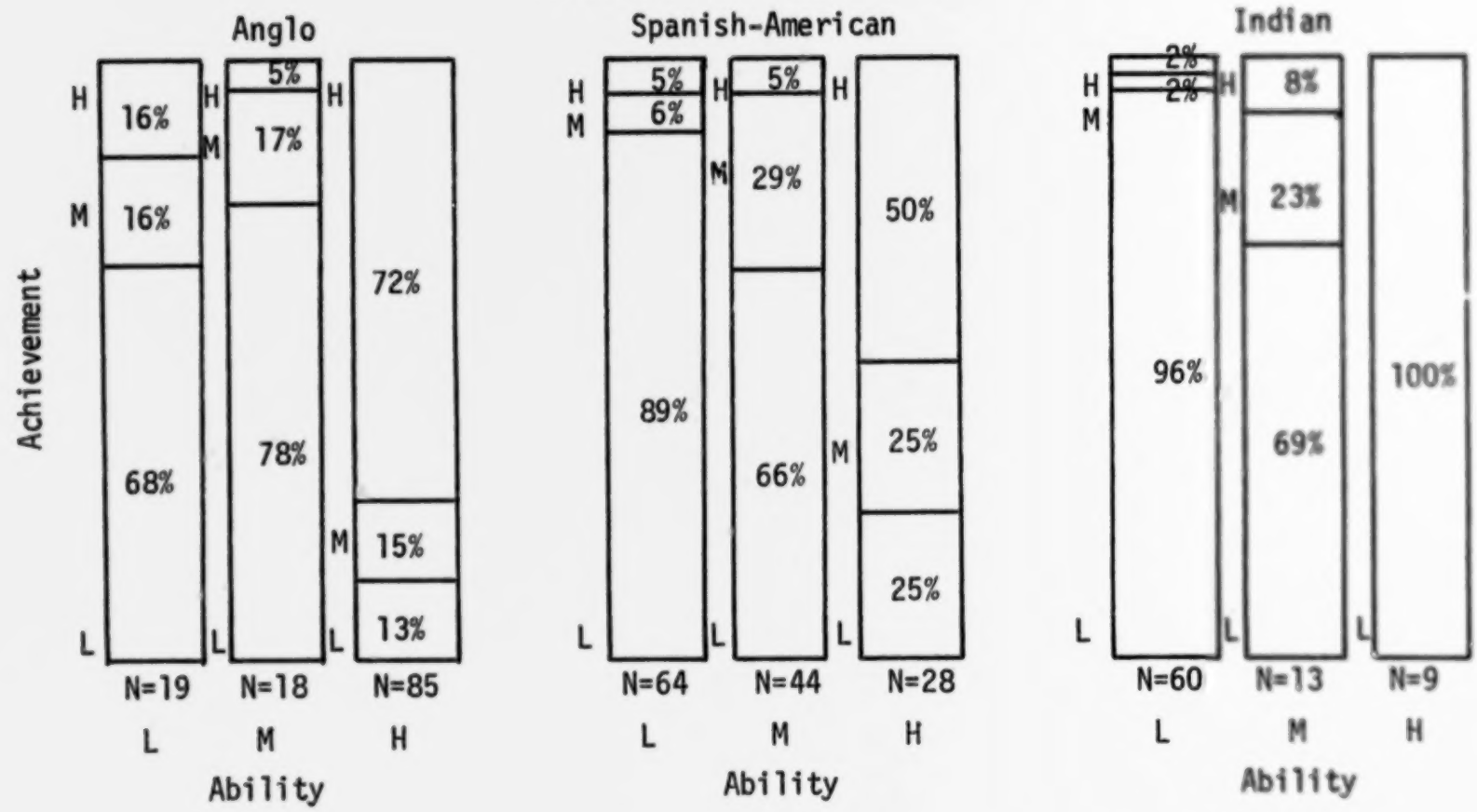
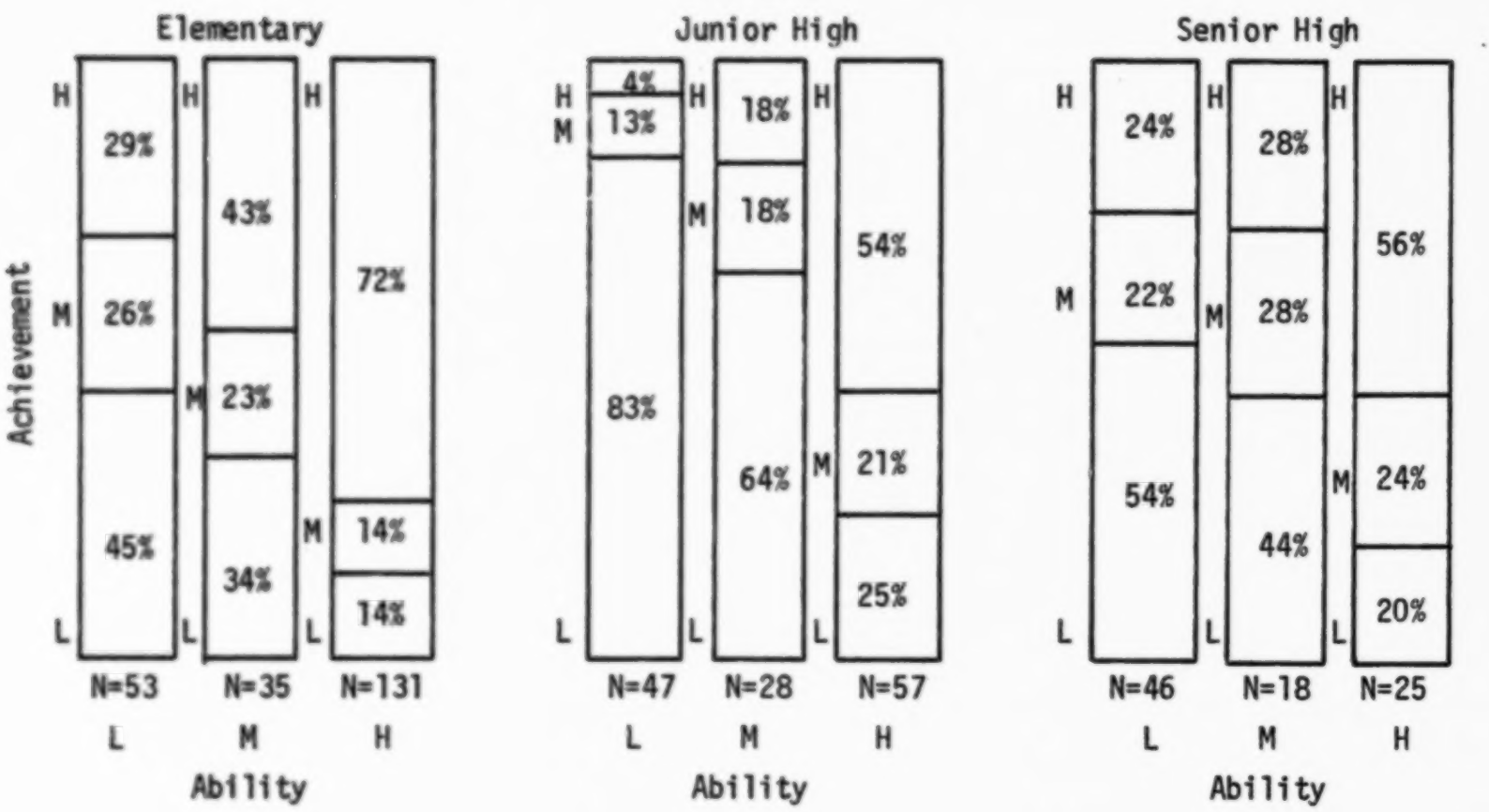


TABLE 4 --- RELATIONSHIP BETWEEN ABILITY AND ACHIEVEMENT FOR ANGLO, SPANISH-AMERICAN AND INDIAN PUPILS

SYSTEM A



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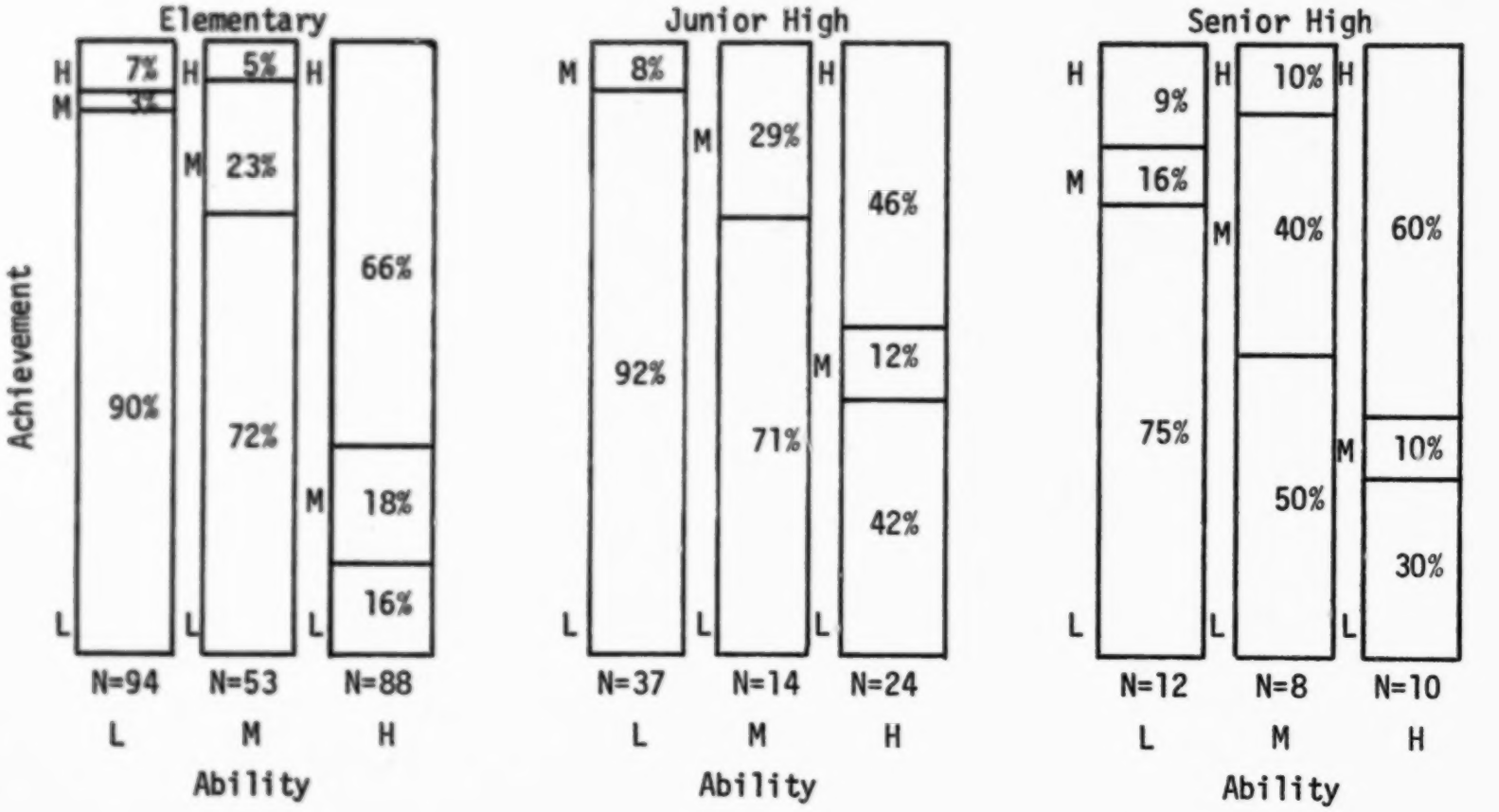

TABLE 5 --- RELATIONSHIP BETWEEN ABILITY AND ACHIEVEMENT FOR ELEMENTARY, JUNIOR HIGH AND SENIOR HIGH SCHOOLS

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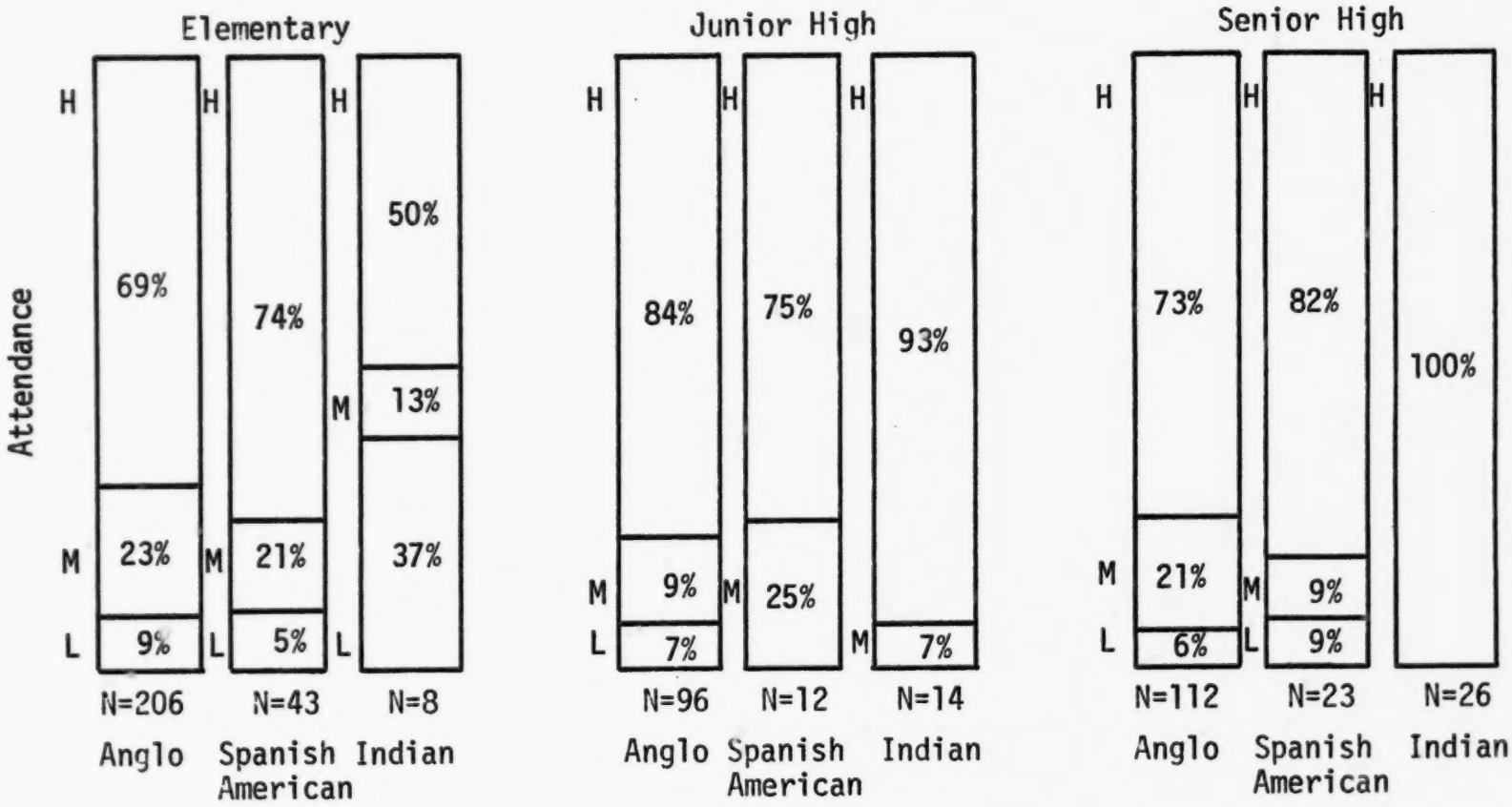


SYSTEM B

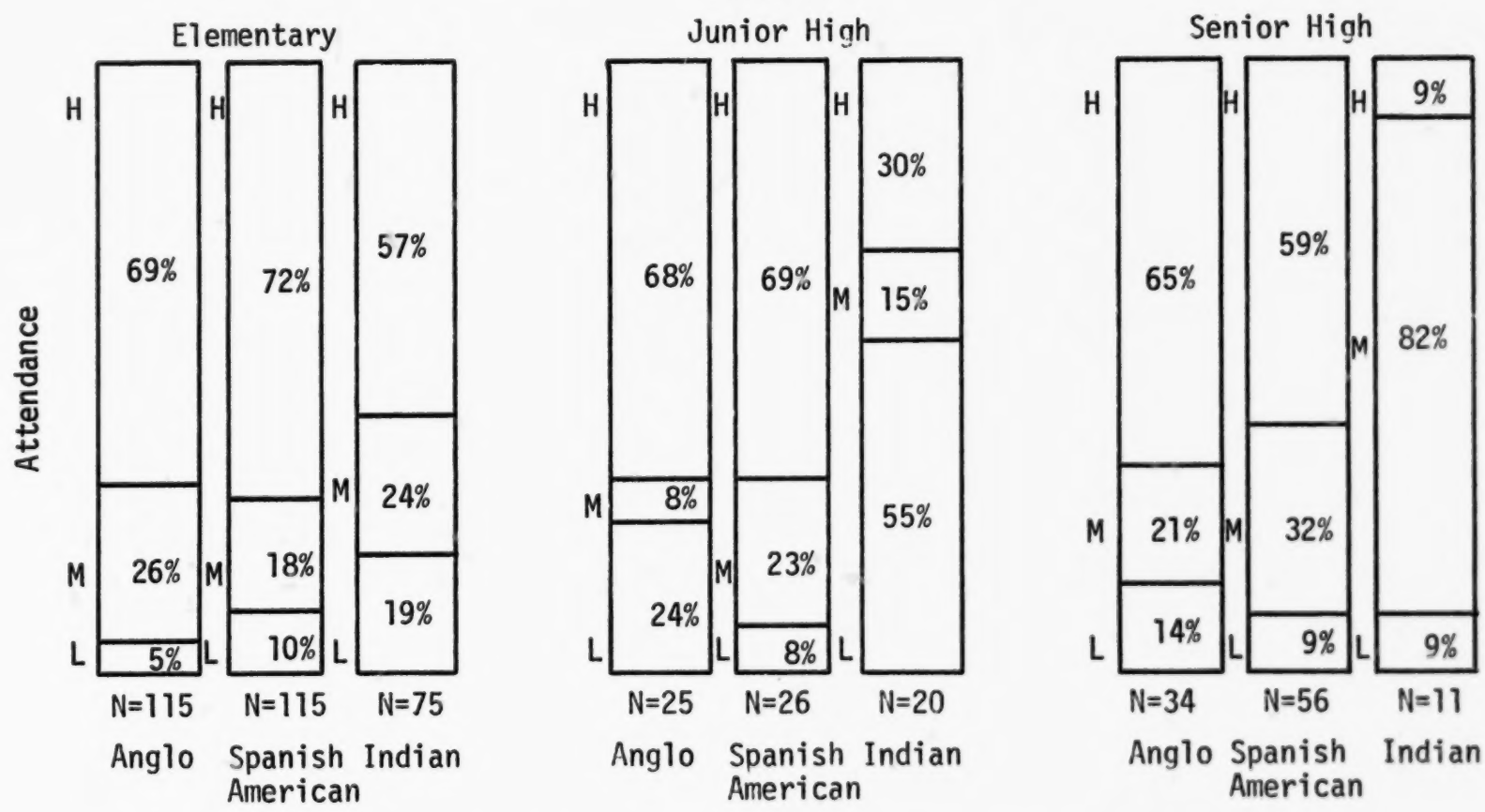
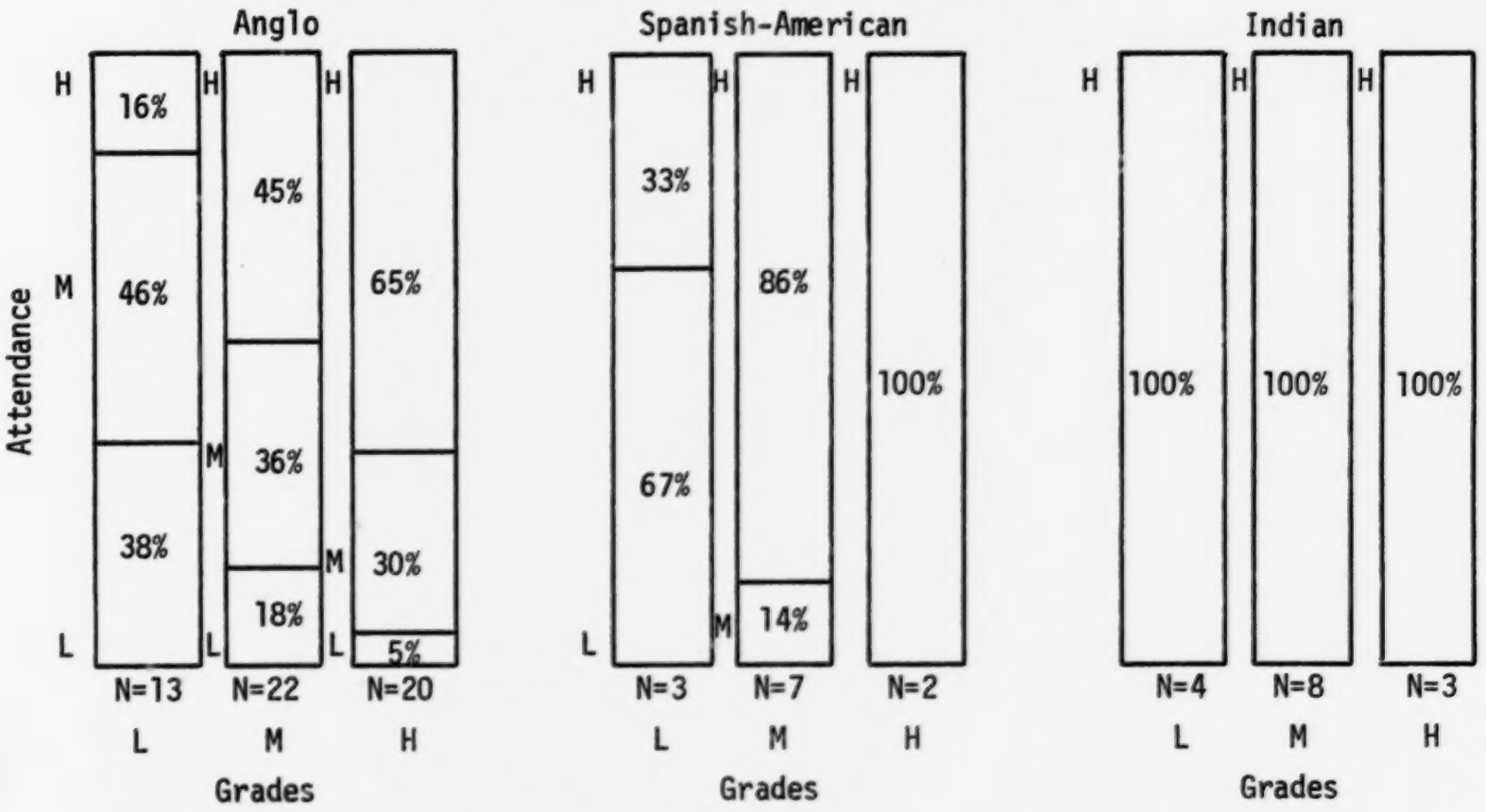


TABLE 6 --- ATTENDANCE FOR ANGLO, SPANISH-AMERICAN AND INDIAN PUPILS IN THE ELEMENTARY, JUNIOR HIGH AND SENIOR HIGH SCHOOLS

SYSTEM A --- TOTAL SCHOOLS



SYSTEM B --- TOTAL SCHOOLS

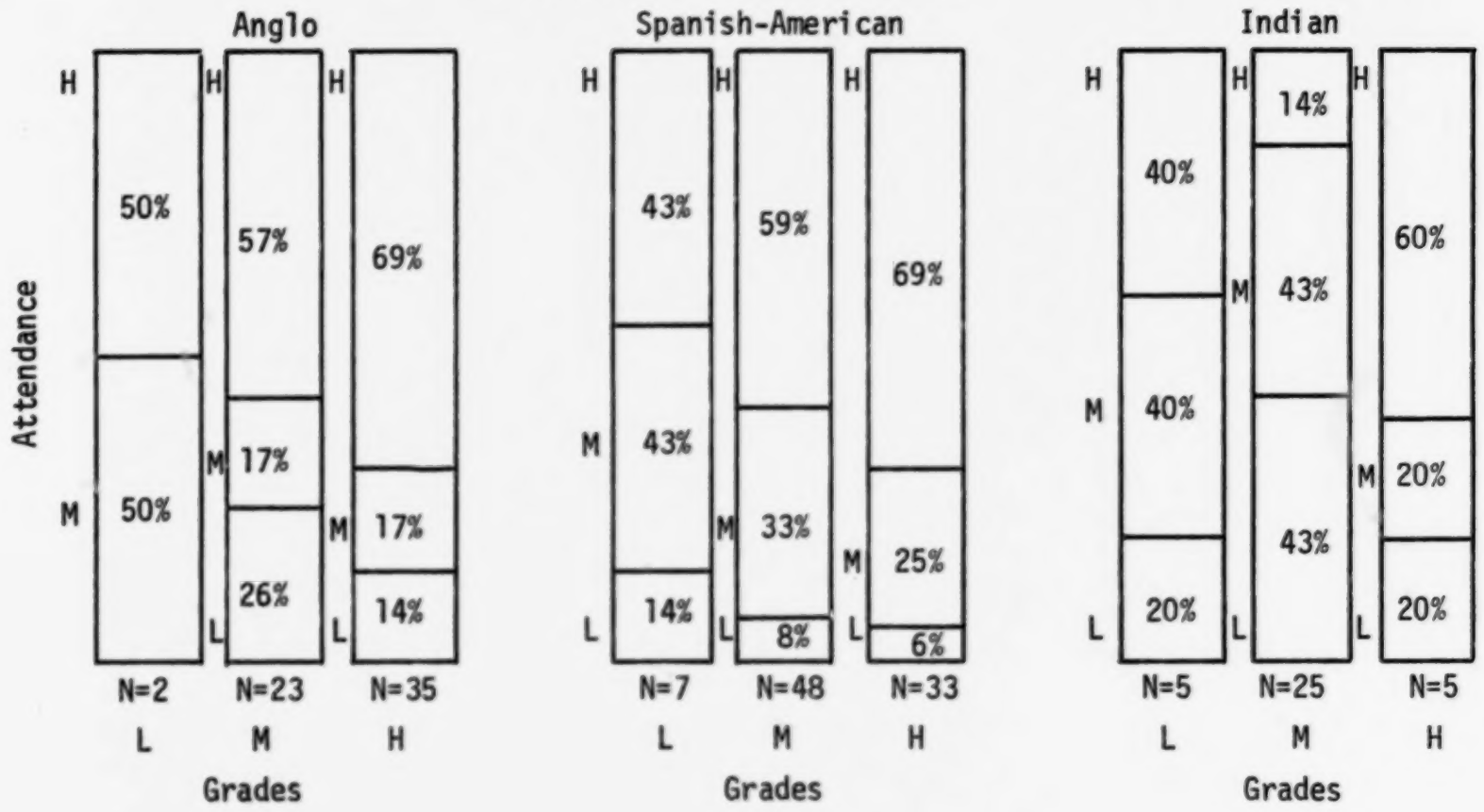


TABLE 7 --- RELATIONSHIP BETWEEN GRADES AND ATTENDANCE FOR ANGLO, SPANISH-AMERICAN AND INDIAN PUPILS